

- Apply Dielectric Compound (available from a Honda dealer) to the electrical connectors prior to reconnecting them. This will help seal out moisture.
- Make sure all electrical connectors are free of corrosion and are completely coupled.

CAPACITOR DISCHARGE IGNITION

All vehicle models are equipped with a DC-capacitor discharge ignition system (DC-CDI), a solid-state system that uses no breaker points.

This type of CDI system improves ignition performance in the low engine speed range. The ignition circuit capacitor is charged by the battery instead of the exciter coil of the alternator. This system stabilizes the voltage applied to the ignition coil since it is not affected by engine speed. The 12 volts supplied by the battery are boosted to approximately 200 volts by the booster circuit, which then charges the capacitor.

As the piston approaches the firing position, a pulse from the pulse generator is used to trigger the thyristor. When this happens the thyristor allows the capacitor to discharge quickly into the primary circuit of the ignition coil, where the voltage is stepped up in the secondary circuit to a value sufficient to fire the spark plug.

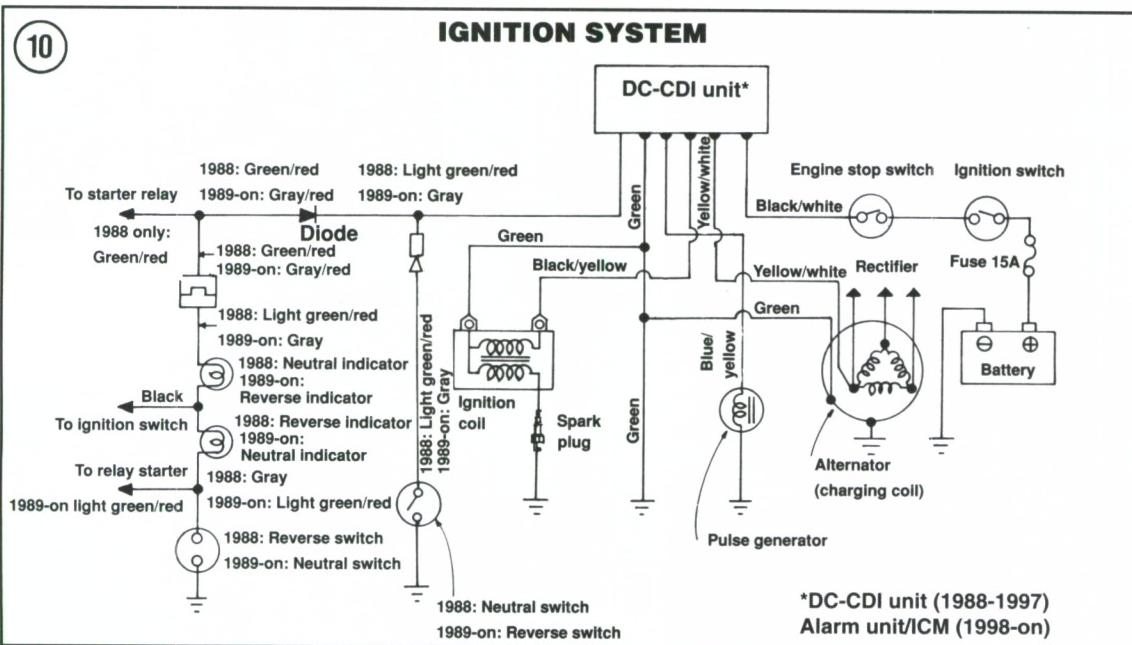
The system also has a feature that allows the system to provide a spark only when the engine is cranking. This is accomplished by detecting the alternator charging current.

The ignition system is shown in **Figure 10**. Note that there are quite a few changes between the 1988 models and the 1989-on models. These changes include different wire colors and the different location of several switches.

DC-CDI Precautions

Certain measures must be taken to protect the capacitor discharge system. Damage to the semiconductors in the system may occur if the following precautions are not observed.

- Never disconnect any of the electrical connections while the engine is running.
- Apply Dielectric Compound (available from a Honda dealer) to all electrical connectors prior to reconnecting them. This will help seal out moisture.
- Make sure all electrical connectors are free of corrosion and are completely coupled to each other.
- Do not substitute another type of ignition coil.
- The DC-CDI unit is mounted within a rubber vibration isolator. Always be sure that the isolator is in place when installing the unit.



CDI Troubleshooting

Problems with the capacitor discharge system fall into one of the following categories. See **Table 1**.

- Weak spark.
- No spark.

DC-CDI Unit Testing

Honda does not provide any service specifications for testing the DC-CDI unit. They provide only test procedures for the components within the ignition system and those tests are included in this section.

DC-CDI Unit Replacement

- Place the vehicle on level ground and set the parking brake.
- Remove the fuel tank as described under *Fuel Tank Removal/Installation* in Chapter Seven.
- Remove the front fender assembly as described under *Front Fender Removal/Installation* in Chapter Thirteen.
- Disconnect the electrical connectors (A, **Figure 11**) from the DC-CDI unit.
- Remove the DC-CDI unit (B, **Figure 11**) from the rubber isolator attached to the frame.
- Install a new DC-CDI unit into the rubber isolator and attach the electrical wires to it.
- Reinstall all items removed.

IGNITION COIL

Removal/Installation

- Place the vehicle on level ground and set the parking brake.
- Remove the fuel tank as described under *Fuel Tank Removal/Installation* in Chapter Seven.
- Disconnect the high voltage lead from the spark plug (A, **Figure 12**).
- Disconnect the black/yellow electrical wire (B, **Figure 12**) from the black terminal of the ignition coil.
- Disconnect the green electrical wire (B, **Figure 12**) from the green terminal of the ignition coil.
- Remove the mounting screw and ground wire and remove the ignition coil (C, **Figure 12**).

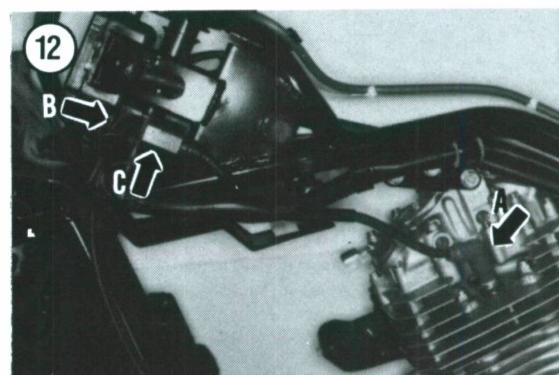
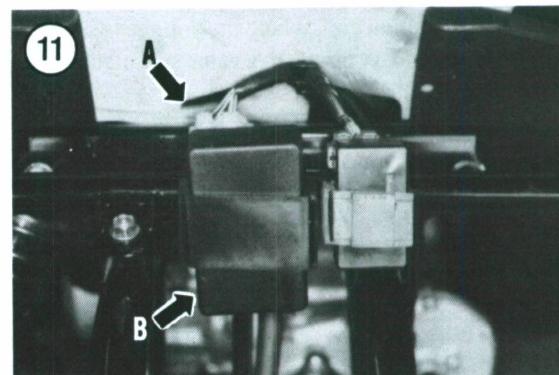
- Install by reversing these removal steps, making sure all electrical connections are tight and free of corrosion.

Testing

The ignition coil is a form of transformer which develops the high voltage required to jump the spark plug gap. The only maintenance required is that of keeping the electrical connections clean and tight and occasionally checking to see that the coil is mounted securely.

If the condition of the coil is doubtful, there are several checks which may be made.

First as a quick check of coil condition, disconnect the high voltage lead from the spark plug (**Figure 13**). Remove the spark plug from the cylinder head. Connect a new or known good spark plug to the high voltage lead and place the spark plug base on a good ground like the engine cylinder head (**Figure 14**). Position the spark plug so you can see the electrode.



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